IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Achim Kraiss	Art Unit	:	2128
Serial No.	: 10/757,651	Examiner	:	David Silver
Filed	: January 14, 2004	Conf. No.	:	3935
Title	: COMPUTING PREDICTION RESULTS			

MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY TO FINAL ACTION OF AUGUST 18, 2008

Claims 1, 3, 5-7, 11, 12, 14 and 20-31 were rejected in a final office action mailed August 18, 2008. Applicant respectfully requests the Examiner's reconsideration in view of the discussion below.

CLAIM REJECTIONS UNDER 35 U.S.C. § 101

Claims 1, 3, 5-7, 11, 12, and 21-31 stand rejected under 35 U.S.C. § 101 as being allegedly directed to non-statutory subject matter. The office action asserts that the pending claims merely recite a software algorithm which does not display, store, or otherwise provide a useful, tangible output. The office action also asserts that the claims are not drawn to a practical, real-world application. Contrary to the assertions in the office action, the pending claims recite several useful, tangible outputs that have practical, real-world application. For example, the claims recite a method that produces first and second prediction results and stores state information. As discussed in Applicant's specification, the stored state information can be used to generate prediction results that may improve interactions between call-center agents and customers. Specification, ¶ 13. Thus, the claims produce useful, tangible results that have real-world application. As such, the claims are directed to statutory subject matter, and Applicant respectfully requests that the Examiner withdraw the rejection.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

Claims 1, 3, 5-7, 11, 12, 14 and 20-31 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Tamayo (US Patent App. Pub. 2002/0083067) in view of Belniak et al. (U.S. Patent No. 7,379,926). Applicant respectfully traverses these rejections.

Applicant's claims are patentable over the cited references because the references do not disclose or suggest all elements of Applicant's claims. For example, the cited references fail to teach or suggest "using the stored state information to select a second decision tree node by traversing the decision tree beginning at a decision tree node referenced by the stored state information" and "using the second decision tree node, the stored state information, and the second input value set to compute a second prediction result." For at least these reasons, Applicant's claims are allowable over the cited references.

Turning to the cited art, Tamayo discusses an enterprise web mining system and method. Tamayo, Title. Tamayo mentions collecting data from a plurality of data sources, integrating the data, generating data mining models, and generating recommendations or predictions. *Id.* ¶ 7. Specifically, Tamayo notes that in certain contexts "a two-stage process is probably desirable . . . First a customer profile is recovered by assigning . . . a demographic and a browsing behavior . . Then the recommendation is computed." Id. ¶ 235. Regarding computing predictions, Tamayo mentions generating models by training a selected algorithm and that "applying a data mining model to data results in . . . predictions with an associated probability." *Id.* ¶ 127.

Tamayo neither discloses nor suggests "using the stored state information to select a second decision tree node by traversing the decision tree beginning at a decision tree node referenced by the stored state information." Indeed, the office action admits that Tamayo does not disclose this limitation. Office action mailed August 18, 2008, pg. 7. However, the office action asserts "that it would have been obvious to store and reuse the state information" and "that one of ordinary skill in the art would have recognized that the results of the combination were predictable."

As an initial matter, such general statements regarding obviousness are not commensurate with the subject matter claimed. Applicants do not merely claim reusing state information as implied in the office action. The claims recite using state information from the computation of a first prediction result to select a second decision tree node by traversing the decision tree

beginning at the decision tree node referenced by the stored state information. The broad, general statement in the office action "that it would have been obvious to store and reuse the state information" ignores these limitations.

In addition, one of skill in the art would not have recognized that the results of the combination were predictable. Applicant's claims do not merely recite combining a decision tree with a cache as suggested by the office action. As noted above, the claims recite "using the stored state information to select a second decision tree node by traversing the decision tree beginning at a decision tree node referenced by the stored state information," where the stored state information is "generated from the computation of a first prediction result." Nowhere does the office action explain how combining a decision tree with a cache would result in the claimed subject matter.

Moreover, Tamayo also fails to teach or suggest "using the second decision tree node, the stored state information, and the second input value set to compute a second prediction result." Although Tamayo discusses that "applying a data mining model to data results in . . . predictions with an associated probability," Tamayo is silent regarding "using the second decision tree node, the stored state information, and the second input value set to compute a second prediction result." Nowhere does Tamayo teach or suggest using stored state information to compute a second prediction result, much less using a second decision node, stored state information, and a second input value set to compute a second prediction result.

Belniak does not remedy the deficiencies of Tamayo. Belniak relates to data manipulation and processing. Belniak, Title. Belniak describes software that learns relationships among uncertainties based on data from previous cases and creates models. *Id.*, col. 5, lines 47-52. Once a model is created, it can be used to make decisions for new cases. *Id.*, col. 5, lines 65-67.

Like Tamayo, Belniak is silent regarding "using the second decision tree node, the stored state information, and the second input value set to compute a second prediction result." Indeed, the office action does not explicitly assert that Belniak teaches this limitation or any other limitation in the pending claims. To the extent that the office action implies that Belniak teaches this limitation, Applicant notes that Belniak describes "learning a Bayes Net from data." *Id.*, col. 9, lines 42-51. Nowhere does Belniak teach or suggest that this process "use[es] the

second decision tree node, the stored state information, and the second input value set to compute a second prediction result," wherein the stored state information is "generated from the computation of the first prediction result."

For at least the foregoing reasons, the cited references do not disclose or suggest all of the limitations of Applicant's claims. As such, independent claims 1, 14, 21, 22, and 27 are patentable over the cited references, as are dependent claims 3, 5-7, 11-12, 20, 23-26, and 28-31, which depend directly or indirectly from one of the independent claims. Accordingly, Applicant requests that the outstanding obviousness rejection be withdrawn.

CONCLUSION

Applicant submits that claims 1, 3, 5-7, 11, 12, 14, and 20-31 are in condition for allowance, and requests that the Examiner issue a notice of allowance.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.
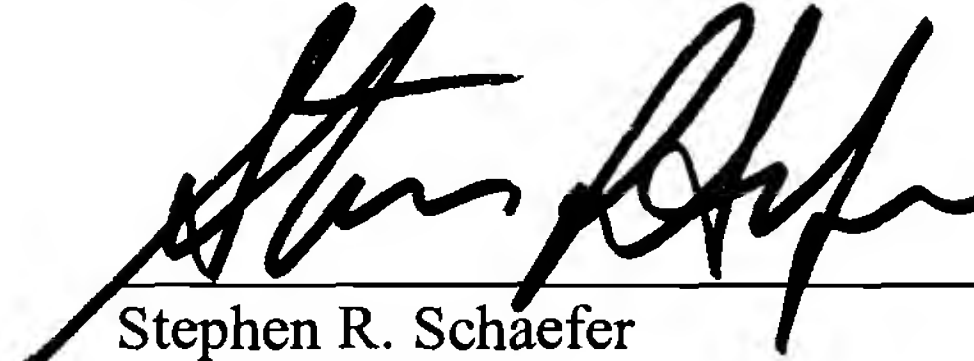
Please apply $130 for the Petition for Extension of Time Fee and any other charges or credits to deposit account 06-1050. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: *Dec. 17, 2008*

Stephen R. Schaefer
Reg. No. 37,927

Fish & Richardson P.C.
60 South Sixth Street
Suite 3300
Minneapolis, MN 55402
Telephone: (612) 335-5070
Facsimile: (877) 769-7945

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